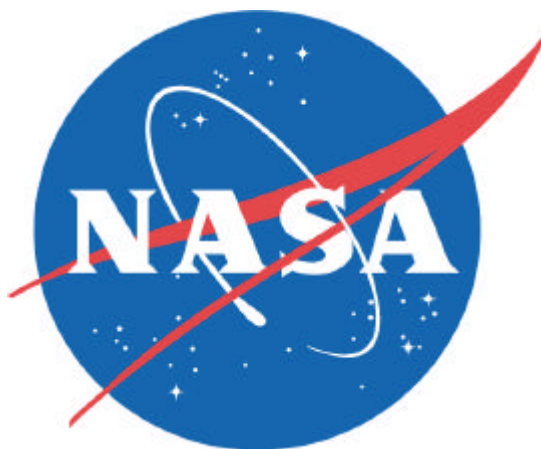


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**Subject: Program Plan Development**

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**NASA Headquarters  
Office of Space Science (OSS)**

Office Work Instruction

# Program Plan Development

Approved by: (Original signed by Dr. Earle K. Huckins) Date: (11/16/1999)  
Dr. Earle K. Huckins  
Deputy Associate Administrator for Space Science

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<b>STATUS (BASELINE/ REVISION/ CANCELED)</b>	<b>DOCUMENT REVISION</b>	<b>EFFECTIVE DATE</b>	<b>DESCRIPTION</b>
Baseline		02/01/1999	<ul style="list-style-type: none"><li>• Initial "baseline" version of the OWI.</li></ul>
Revision	A	05/10/1999	<ul style="list-style-type: none"><li>• Incorporates modifications responsive to NCRs #291, #293, #296, #298, #302, #311, #312, #315, #317, and #321 from the NASA HQ ISO-9001 Pre-Assessment audit.</li></ul>
Revision	B	11/16/1999	<ul style="list-style-type: none"><li>• Incorporates modifications from SSE Process Owner into Section 2, Section 5, and Section 6.</li><li>• Clarifies "review" and "approval" activities in Section 6.</li><li>• Incorporates recent terminology and format standardization.</li></ul>

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## Subject: Program Plan Development

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- 1. PURPOSE** The purpose of this Office Work Instruction (OWI) is to define the process by which the Office of Space Science (OSS) initiates the development of a Program Plan and/or a Program-Level Requirements Appendix to the Program Plan.

## 2. SCOPE AND APPLICABILITY

- 2.1 A Program Plan/Program-Level Requirements Appendix is prepared during the “formulation” sub-process of a program or project and is signed by the Associate Administrator for Space Science or the cognizant Science Theme Director when the program or project receives approval from OSS to proceed to the “implementation” sub-process, as defined in Section 2.2 of NPG 7120.5 for a program and Section 3.2 of NPG 7120.5 for a project. Program Plans and Program-Level Requirements Appendices are generally not revised after signature. However, the Level 1 requirements may be modified and documented in a new Program Plan/Program-Level Requirements Appendix that is approved by the Associate Administrator for Space Science or the cognizant Science Theme Director. The Program Plan content is defined in Appendix E-3 of NPG 7120.5.
- 2.2 This OWI is applicable to all OSS flight programs. A Program Plan is required for all programs. A Program-Level Requirements Appendix is required for each project if the program has more than one project under its management control.

## 3. DEFINITIONS

- 3.1 AA. Associate Administrator for Space Science.
- 3.2 Code SD. OSS Mission and Payload Development Division.
- 3.3 Governing Program Management Council (GPMC). Forums composed of NASA Headquarters, NASA Center, and/or NASA Federally Funded Research and Development Center (FFRDC) Senior Management that assess program and project planning and implementation and provide oversight and direction.

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Mission and Payload Development Division (Code SD)

---

**Subject: Program Plan Development**

---

- 3.4            Program. An activity within an Enterprise having defined goals, objectives, requirements, and funding and consisting of one or more projects. It reports to the NASA PMC, unless delegated to a GPMC.
- 3.5            Program Executive. In accordance with delegation authority from the AA for Space Science, responsible for: providing program policy, strategy, and standards that support OSS goals and standards; determining program objectives, goals, and requirements; approving principal program documents; allocating funds to ensure successful implementation of the program; and assessing program performance.
- 3.6            Program-Level Requirements Appendix. The document that establishes the baseline for project implementation, including the Level 1 requirements as well as the agreements among the Program Executive, Program Scientist, the cognizant Science Theme Director, the Lead Center Director, the implementing organization, and the Program Manager. This document is an appendix to the Program Plan under whose management authority it reports at the NASA Center.
- 3.7            Program Management Council (PMC). The Senior Management group, chaired by the NASA Deputy Administrator, responsible for reviewing and recommending approval of proposed programs and overseeing their implementation according to NASA commitments, priorities, and policies.
- 3.8            Program Manager. Responsible for establishing general technical and management guidelines for the program with emphasis upon the management processes to be followed, including implementation methods. These implementation methods include establishment of design, mission-assurance requirements, and assurance of sound management and engineering processes. Also responsible for monitoring program activities to assess technical progress.

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Mission and Payload Development Division (Code SD)

11/16/1999

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**Subject: Program Plan Development**

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- 3.9            Program Plan. The document that establishes the baseline for program implementation, including the Level 1 requirements as well as the agreements among the Program Executive, the Program Scientist, the Associate Administrator for Space Science, the Lead Center Director, the implementing organization, and the Program Manager.
- 3.10          Program Scientist. In accordance with delegation authority from the Associate Administrator for Space Science, responsible for: providing science policy, strategy, and standards that support OSS goals and standards; determining science objectives, goals, and requirements; approving principal program documents; providing science leadership for the program, and assessing science performance.
- 3.11          Project. An activity designated by a program and characterized as having defined goals, objectives, requirements, life-cycle costs, a beginning, and an end.
- 3.12          Project Manager. Responsible for meeting the commitments of an individual project (e.g., performance, cost, and schedule) and for following the program-level technical and management guidance established by the Program Manager.

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**Subject: Program Plan Development**

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**4. REFERENCES**

- |      |                          |   |
|------|--------------------------|---|
| 4.1  | ANSI/ISO/ASQC Q9001-1994 | American National Standard, Quality Systems --<br>Model for Quality Assurance in Design,<br>Development, Production, Installation, and<br>Servicing |
| 4.2  | HCP1280-2                | Corrective and Preventive Action  |
| 4.3  | HCP1280-3                | Internal Quality Audits   |
| 4.4  | HCP1400-1                | Document and Data Control   |
| 4.5  | HCP3410-4                | Employee Training   |
| 4.6  | HQPC1150.1               | NASA Headquarters Quality Council Policy<br>Charter   |
| 4.7  | HQSM1200-1               | NASA Headquarters Quality System Manual   |
| 4.8  | NHB 1101.3               | NASA Organization Handbook  |
| 4.9  | NPD 1000.1               | NASA Strategic Plan   |
| 4.10 | NPD 7120.4               | Program/Project Management  |
| 4.11 | NPD 8730.3               | NASA Quality Management System Policy (ISO<br>9000)   |
| 4.12 | NPG 1000.2               | NASA Strategic Management Handbook  |
| 4.13 | NPG 1441.1               | NASA Records Retention Schedules (NRRS)   |
| 4.14 | NPG 7120.5               | NASA Program and Project Management<br>Processes and Requirements   |

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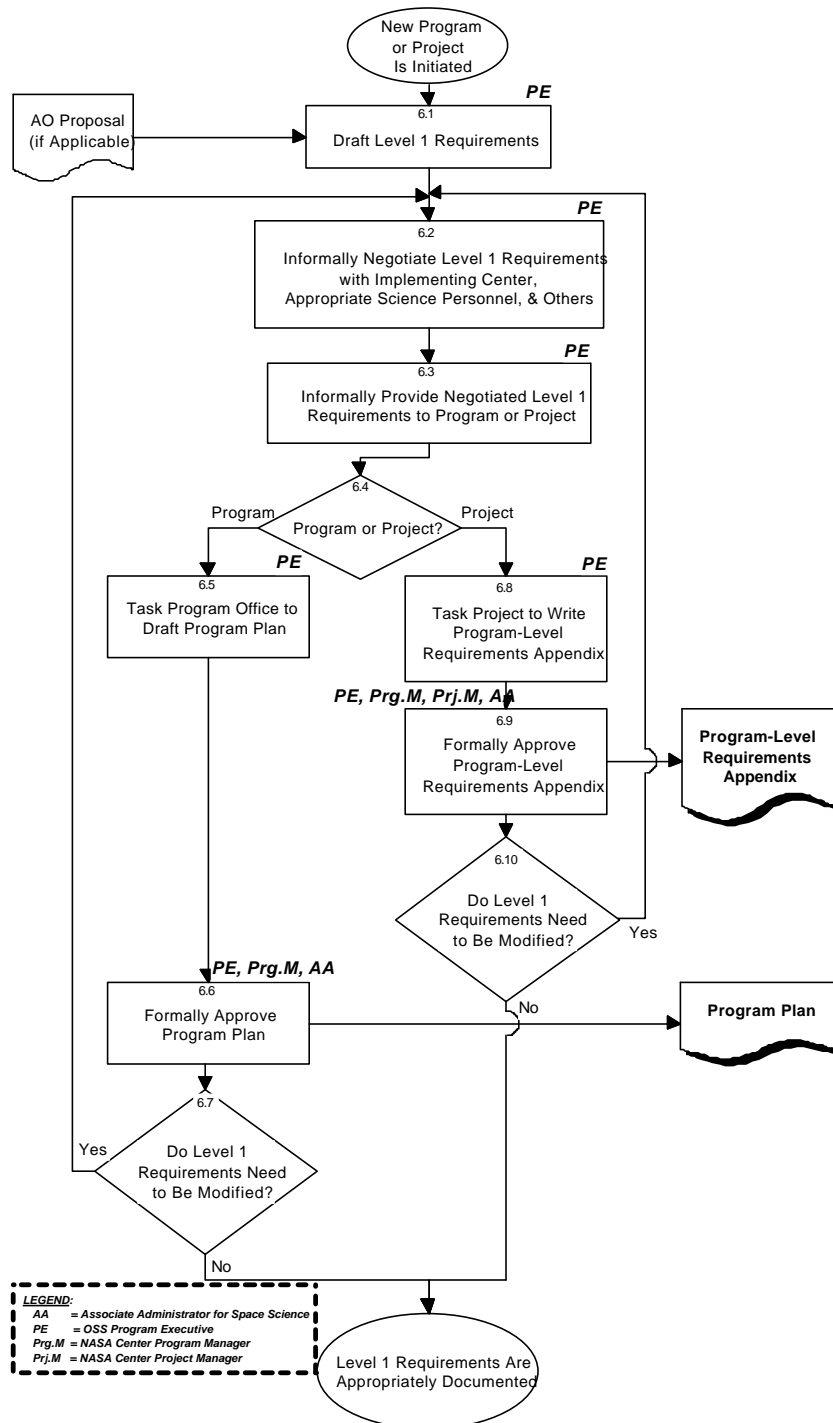
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### 5. FLOWCHART

[NOTE #1: "Quality records" are identified via shadowing of their ANSI symbols.]

[NOTE #2: Process steps are numbered in accordance with their corresponding paragraph numbers in Section 6.]



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**Subject: Program Plan Development**

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**6. PROCEDURE**

<u>STEP #</u>	<u>ACTION OFFICERS</u>	<u>DESCRIPTION</u>
		<i>[The process commences when a new program or project is initiated.]</i>
6.1	Program Executive	The Program Executive provides guidance to the Program/Project Manager for drafting the Level 1 requirements during the "formulation" sub-process. If the mission was selected via an Announcement of Opportunity (AO), the draft Level 1 requirements are extracted from the winning proposal. If the mission was not selected via an AO, the draft Level 1 requirements are extracted from other relevant sources (e.g., instrument capabilities, mission-concept studies, or non-NASA documents if it is a cooperative mission).
6.2	Program Executive	The Program Executive informally negotiates the Level 1 requirements with personnel at the relevant NASA Headquarters offices and NASA Centers. These personnel include the Program Scientist, Science Theme Director, and Program/Project Manager. Others may include the Project Scientist, the implementing organization (if different than the Lead Center Director), Principal Investigator(s), OSS Policy Analyst, non-NASA partners, the NASA Headquarters tracking office, and the NASA Headquarters launch vehicles office. When an informal consensus is reached on the content of the Level 1 requirements, negotiations are completed.
6.3	Program Executive	The Program Executive informs the Program/Project Manager that informal consensus has been reached and provides a copy of the informal negotiated Level 1 requirements.

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11/16/1999

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**Subject: Program Plan Development**

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- 6.4 If the Program Executive determines that the Level 1 requirements are for a program, proceed to Step #6.5. If the Program Executive determines that the Level 1 requirements are for a project, proceed to Step #6.8.
- 6.5 Program Executive The Program Executive tasks the Program Manager to draft a Program Plan, following the content requirements identified in Appendix E-3 of NPG 7120.5 and incorporating the negotiated Level 1 requirements.
- 6.6 Program Executive, Program Manager, AA After the Program Executive and Program Manager agree on the content of the Program Plan, the Program Manager obtains the appropriate signatures at the NASA Center and submits the plan to the Program Executive, who then obtains formal approval by the Associate Administrator for Space Science via signature on the approval line in the Program Plan.
- 6.7 If the Level 1 requirements need to be revised, return to Step #6.2. If not, end the process.
- 6.8 Program Executive The Program Executive tasks the Project Manager to draft a Program-Level Requirements Appendix to the relevant Program Plan, following the content requirements identified in Appendix E-3 of NPG 7120.5 and incorporating the negotiated Level 1 project requirements.
- 6.9 Program Executive, Program Manager, Project Manager, AA After the Program Executive and Project Manager agree on the content of the Program-Level Requirements Appendix, the Project Manager obtains the appropriate signatures at the NASA Center and submits the plan to the Program Executive, who then obtains formal approval by the Associate Administrator for Space Science or cognizant Science Theme Director via signature on the approval line in the Program-Level Requirements Appendix.

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Mission and Payload Development Division (Code SD)

11/16/1999

## Subject: Program Plan Development

6.10

If the Level 1 requirements need to be revised, return to Step #6.2. If not, end the process.

*[The process ceases when the Level 1 requirements are appropriately documented for the program or project.]*

## 7. QUALITY RECORDS

RECORD IDENTIFICATION	OWNER	LOCATION	MEDIA: ELECTRONIC OR HARDCOPY	NPG 1441.1 SCHEDULE NUMBER AND ITEM NUMBER	RETENTION/ DISPOSITION
Program-Level Requirements Appendix	Code SD Division Secretary	Code SD Division files	Hardcopy	Schedule 7, Item 5D1	* Permanent *  Retire to FRC 1 year after completion, cancellation, or termination of related project. Transfer to NARA 10 years after subject action or when 25 years old, whichever is sooner.
Program Plan	Code SD Division Secretary	Code SD Division files	Hardcopy	Schedule 7, Item 5D1	* Permanent *  Retire to FRC 1 year after completion, cancellation, or termination of related project. Transfer to NARA 10 years after subject action or when 25 years old, whichever is sooner.

[NOTE #1: These "quality records" are identified in Section 5 ("Flowchart") of this OWI via shadowing of their ANSI symbols.]

[NOTE #2: In accordance with NPG 1441.1 NASA Records Retention Schedules, "... installations' office of primary responsibility will maintain one official record copy ...; reference copies may be maintained for related work". Therefore, the "Retention" and "Disposition" aspects of quality records apply only to the one official record copy of each quality record.]

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